

**APPENDIX: Clean Copy of Claims as Amended**

6 (Amended) A method for making a cell-matrix construct for use as a heart valve or blood vessel comprising

implanting into an animal at a first site a fibrous matrix formed of a synthetic biodegradable polymer having seeded therein a mixture of cells selected from the group selected from endothelial cells, myofibroblasts, skeletal muscle cells, vascular smooth muscle cells, myocytes, fibromyoblasts, and ectodermal cells, wherein the matrix is formed of a biocompatible, biodegradable polymer, and

implanting into an animal or human the matrix at a site where the resulting cell-construct is needed.

7. The method of claim 6 further comprising seeding the matrix with dissociated parenchymal or connective tissue cells.

3 8 (amended) The method of claim 6 wherein the matrix is first cultured at a first site in a patient prior to being implanted at a second site.

B<sup>2</sup> 1 9 (amended) The method of claim 6 wherein the matrix is a heart valve and is implanted in the heart.

5 10 (amended) The method of claim 6 wherein the cell-matrix construct is seeded with vascular smooth muscle cells and endothelial cells is implanted to form a valve.

11. The method of claim 10 wherein the valve is a heart valve.

12. The method of claim 6 wherein the cell-matrix construct is seeded with endothelial cells and implanted to form a blood vessel.